

In re: Application of Cooper et al.
Serial No.: To Be Assigned
Filed: Concurrently Herewith
Page 3

16. (Amended) The sensor array of claim 12 wherein the acoustic resonance is generated by a surface acoustic wave device.

17. (Amended) The sensor array of claim 1 wherein the volume-changing sensor and mass-changing sensor are integrated on the same device or sensor structure.

REMARKS

The Applicants submit that upon entrance of the above amendments, this application is in condition for substantive examination and allowance, which actions are respectfully requested. Please enter this Amendment prior to the calculation of the filing fee.

Respectfully submitted,



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CERTIFICATE OF MAILING

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Vickie Diane Prior
Date: March 14, 2001

FILED "FEE" 2001

Version With Markings To Show Changes Made

In the Specification:

On page 1, line 1, please insert the following:

Cross-Reference to Related Applications

The present application is a national phase filing based on PCT International Application No. PCT/GB99/02870 filed September 14, 1999. This PCT application claims priority to Great Britain Application No. 9820009.0 filed September 14, 1998. The above PCT application was published in the English language as WO 00/16096.

In the Claims:

Please **amend** the following claims:

7. (Amended) The sensor array of claim 2 **[any one of claims 2 to 4]** wherein the change in electrical properties of the composite material is a change in the resistance or charge capacitance of said composite material.
6. (Amended) The sensor array of claim 2 **[any one of claims 2 to 5]** wherein the volume-changing sensor includes electrically conductive and non-conductive regions.
7. (Amended) The sensor array of claim 1 **[any preceding claim]** wherein the volume-changing sensor is a carbon black doped chemoresistor.
8. (Amended) The sensor array of claim 2 **[any one of claims 2 to 6]** wherein the polymer of the volume-changing-sensor is loaded with either silver/gold/other metallic colloid or cluster, a conducting polymer or a redox metal or organometallic complex.

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9. (Amended) The sensor array of claim 1 **[any preceding claim]** wherein the volume-changing sensor comprises interdigitated electrodes.

10. (Amended) The sensor array of claim 1 **[any preceding claim]** wherein the volume-changing-sensor is a capacitance/complex impedance sensor.

11. (Amended) The sensor array of claim 1 **[any one of claims 1 to 9]** wherein the volume-changing sensor utilises an optical, thickness-sensitive technique such as surface plasma resonance spectroscopy or ellipsometry or based on an optical transmission through a coated fiber optic.

12. (Amended) The sensor array of claim 1 **[any preceding claim]** wherein the mass-changing sensor comprises an acoustic resonance device.

14. (Amended) The sensor array of claim 12 **[any of claims 12 or 13]** wherein the resonance device is loaded with a semiconductor component.

15. (Amended) The sensor array of claim 12 **[any of claims 12 to 14]** wherein the acoustic resonance device is a quartz crystal microbalance.

16. (Amended) The sensor array of claim 12 **[any of claims 12 to 14]** wherein the acoustic resonance is generated by a surface acoustic wave device.

17. (Amended) The sensor array of claim 1 **[any preceding claim]** wherein the volume-changing sensor and mass-changing sensor are integrated on the same device or sensor structure.

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